

ABSTRACT OF THE DISCLOSURE

The invention provides devices and methods for performing liquid phase microextraction of at least one analyte from an aqueous sample, wherein the device comprises a liquid membrane comprising a fatty acid ester, a vegetable oil, a silicone oil, a nitroaryalkylether, or mixtures thereof, and an optional carrier, supported on a porous polymeric substrate. In a preferred embodiment, the porous polymeric substrate is a hollow fiber. The devices and methods for preparing them provide stable liquid membranes for performing liquid phase microextraction, where the membranes can be stored for 30, 60 or 90 days prior to use.